

1 WE CLAIM:

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3 1. An apparatus comprising:

4 (a) a substrate including a level intermediate region disposed between a first end

5 region and a second end region;

6 (b) a first external member disposed circumferentially around the first end

7 region in a continuous manner and protruding above the level intermediate region,

8 thereby resulting in a deposition region including the surface of the first external

9 member covering the first end region, an optional exposed first end region portion, and

10 the intermediate region; and

11 (c) a dip coated layer over the entire deposition region, wherein the portion of

12 the dip coated layer over the first external member and the optional exposed first end

13 region portion is formed prior to the portion of the dip coated layer over the

14 intermediate layer.

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16 2. The apparatus of claim 1, wherein there is absent a fastener joining the first

17 external member to the first end region.

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19 3. The apparatus of claim 1, further comprising a fastener to couple the first

20 external member to the first end region.

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22 4. The apparatus of claim 1, wherein the substrate is a cylinder.

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24 5. The apparatus of claim 1, wherein the substrate includes an uncoated region.

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26 6. The apparatus of claim 5, wherein the first external member extends into the

27 uncoated region.

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29 7. The apparatus of claim 1, wherein the first external member protrudes above

30 the level intermediate region by a value ranging from about 10 micrometers to about 10

31 mm .

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33 8. The apparatus of claim 1, wherein the first external member is an elastic

34 band.

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1 9. The apparatus of claim 1, wherein the first external member is a wire.
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3 10. The apparatus of claim 1, wherein the first external member has a level top
4 surface.
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6 11. The apparatus of claim 1, wherein the dip coated layer comprises a charge
7 transport material.
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9 12. The apparatus of claim 1, wherein the portion of the dip coated layer over
10 the intermediate region has a substantially uniform thickness.
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12 13. The apparatus of claim 1, further comprising a second external member
13 disposed circumferentially around the second end region in a continuous manner and
14 protruding above the level intermediate region, and the deposition region includes the
15 surface of the second external member covering the second end region and an optional
16 exposed second end region portion.
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18 14. An apparatus comprising:
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20 (a) a substrate defining a longitudinal axis and including a level intermediate
21 region disposed between a first end region and a second end region;
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23 (b) a plurality of external members, each of the external members protruding
24 above the level intermediate region and disposed only partially around the first end
25 region, wherein the plurality of the external members, when viewed at a substrate end
26 view, collectively extend circumferentially around the first end region in a continuous
27 manner, thereby resulting in a deposition region including the surfaces of the external
28 members covering the first end region, an optional exposed first end region portion,
29 and the intermediate region; and
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31 (c) a dip coated layer over the entire deposition region, wherein the portion of
32 the dip coated layer over the external members and the optional exposed first end
33 region portion is formed prior to the portion of the dip coated layer over the
34 intermediate layer.
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36 15. The apparatus of claim 1, wherein the plurality of the external members
37 ranges in number from 2 to 5.
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1 16. A coating method comprising:

2 (a) providing an apparatus including:

3 (i) a substrate including a level intermediate region disposed between a first end
4 region and a second end region;

5 (ii) a first external member disposed circumferentially around the first end
6 region in a continuous manner and protruding above the level intermediate region,
7 thereby resulting in a deposition region including the surface of the first external
8 member covering the first end region, an optional exposed first end region portion, and
9 the intermediate region; and

10 (b) dip coating a layer of a coating solution over the entire deposition region,
11 wherein the portion of the dip coated layer over the first external member and the
12 optional exposed first end region portion is formed prior to the portion of the dip
13 coated layer over the intermediate layer.

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15 17. The coating method of claim 16, further comprising leaving permanently in
16 place the first external member around the first end region subsequent to the dip
17 coating.

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19 18. The coating method of claim 16, wherein there is absent a fastener joining
20 the first external member to the first end region.

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22 19. The coating method of claim 16 wherein the apparatus further comprises a
23 fastener to couple the first external member to the first end region.